AMENDMENTS TO THE CLAIMS

Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Canceled)

2. (Canceled)

3. (Canceled)

4. (Previously presented) The method of claim 31 wherein the concentration of the multi-effect triazole is about 0.1 mg/l.

5. (Previously presented) The method of claim 31 wherein the cotton seedlings of step (a) are grown in medium further comprising α naphthalene acetic acid.

6. (Previously presented) The method of claim 5 wherein the concentration of α naphthalene acetic acid is about 0.01 to 0.2 mg/l.

7. (Previously presented) The method of claim 6 wherein the concentration of α naphthalene acetic acid is 0.05 mg/l.

8. (Previously presented) The method of claim 31 wherein the step of regenerating the somatic embryos into whole plants is carried out in the presence of about 0.05 to 0.2 mg/l of multi-effect triazole.

9. (Canceled)

10. (Previously presented) The method of claim 8 wherein the concentration of the multi-effect triazole is 0.1 mg/l.

11. (Previously presented) The method of claim 8 wherein the step of regenerating the somatic embryos is carried out in about 0.01 to 0.2 mg/l α naphthalene acetic acid.

12. (Canceled)

13. (Previously presented) The method of claim 11 wherein the concentration of α naphthalene acetic acid is 0.05 mg/l.

14. (Previously presented) The method of claim 31 wherein the step of inducing callus formation is carried out in a callus inducing culture medium comprising myo-inositol, vitamin B_1 and a dimethylallyl (amino) purine.

15. (Previously presented) The method of claim 31 wherein the step of inducing somatic embryo formation is carried out in a somatic embryo inducing culture medium comprising myo-inositol, vitamin B_1 and a dimethylallyl (amino) purine.

16. (Previously presented) The method of claim 14 wherein the callus inducing culture medium comprises from about 50 to 150 mg/L of myo-inositol, from about 0.2 to 10 mg/L vitamin B_1 and from about 0.1 to 7.5 mg/L dimethylallyl (amino) purine.

17. (Original) The method of claim 16 wherein the callus inducing culture medium comprises 100 mg/L myo-inositol, 0.4 mg/L vitamin B_1 and 5 mg/L dimethylallyl (amino) purine.

18. (Previously presented) The method of claim 15 wherein somatic embryo inducing culture medium comprises from about 50 to 100 mg/L myo-inositol, from about 0.2 to 10 mg/L

vitamin B_1 and from about 0.1 to 0.5 mg/L dimethylallyl (amino) purine.

19. (Original) The method of claim 18 wherein somatic embryo inducing culture medium comprises 100 mg/L myo-inositol, 0.4 mg/L vitamin B_1 and 5 mg/L dimethylallyl (amino) purine.

20. (Previously presented) The method of claim 31 wherein the step of inducing callus formation is carried out in a callus inducing culture medium comprising vitamin B_5, (2,4-dichlorophenoxy) acetic acid, $MgCl_2$ and glucose.

21. (Previously presented) The method of claim 31 wherein the step of inducing somatic embryo formation is carried out in a somatic embryo inducing culture medium comprising vitamin B_5, (2, 4-dichlorophenoxy) acetic acid, $MgCl_2$ and glucose.

22. (Previously presented) The method of claim 20 wherein the callus inducing culture medium comprisesfrom about 0.2 to 10 mg/L vitamin B_5, from about 0.05 to 0.15 mg/L (2,4-dichlorophenoxy) acetic acid, from about 0.4 to 1.2 mg/L, $MgCl_2$ from about 1% to 5% glucose.

23. (Previously presented) The method of claim 22 wherein the callus inducing culture medium comprises 0.4 mg/L vitamin B_5, 0.1 mg/L (2,4-dichlorophenoxy) acetic acid, 0.8 mg/L $MgCl_2$ and 3% glucose.

24. (Previously presented) The method of claim 21 wherein the somatic embryo inducing culture medium comprises from about 0.2 to 10 mg/L vitamin B_5, from about 0.05 mg/L to 0.15 mg/L (2,4-dichlorophenoxy) acetic acid, from about 0.4 to 1.2 mg/L, $MgCl_2$ from about 1% to 5% glucose.

25. (Previously presented) The method of claim 24 wherein the somatic embryo inducing medium comprises 0.4 mg/L vitamin B_5, 0.1 mg/L (2, 4-dichlorophenoxy) acetic acid, 0.8 mg/L $MgCl_2$ and 3% glucose.

26. (Previously presented) A method according to claim 31, wherein the medium of steps (a), (b), (c), (d) or (e) further comprises from about 1.0 g/L to 3.0 g/L gellan gum.

27. (Canceled)

28. (Previously presented) The method of claim 31 wherein the step of inducing somatic embryo culture is carried out in a somatic embryo-inducing medium comprising a nitrate in an amount from about 1900 to 3800 mg/L.

29. (Canceled)

30. (Previously presented) A method according to claim 28, wherein the nitrate is KNO_3.

31. (Previously presented) A method for producing a transgenic cotton plant comprising:

(a) preparing explants from fibrous roots of cotton seedlings cultured in medium comprising about 0.05 mg/l to 0.2 mg/l of multi-effect triazole;

(b) culturing said root explants in medium comprising a plant hormone selected from 2, 4, dichlorophenoxy acetic acid and α naphthalene acetic acid to induce callus formation;

(c) transforming said callus with *Agrobacterium tumifaciens* comprising a DNA encoding a chimeric gene of interest to effect the stable transfer of said chimeric gene to the genome of cells comprising the callus tissue;

(d) inducing somatic embryos from said transformed callus; and

(e) regenerating whole transgenic cotton plants having said gene of interest from said somatic

embryos.

32. (Currently amended) The method of claim 31 wherein said DNA ~~encodes~~ is selected from the group consisting of an herbicide resistance gene, a gene that confers glyphosate resistance, a shikimate synthase gene and a *Bacillus thuringiensis* toxin gene.

33. (Cancelled

34. (Cancelled)

35. (Cancelled)

36. (Previously presented) The method of claim 31 wherein callus derived from explants of cotton seedling fibrous roots is transformed with *Agrobacterium tumifaciens* comprising a first DNA encoding a chimeric gene of interest and a second DNA encoding a selectable marker gene to effect the stable transfer of said chimeric gene and said selectable marker gene to the genome of cells comprising the callus tissue.

37. (New) The method of claim 31, wherein said callus is transformed with *Agrobacterium tumifaciens* strain LBA 4404.

38. (New) A method for transforming *Gossypium hirsutum* cv. Coker 312 comprising:

(a) preparing explants from fibrous roots of cotton seedlings cultured in medium comprising about 0.05 mg/l to 0.2 mg/l of multi-effect triazole;

(b) culturing said root explants in medium comprising a plant hormone selected from 2, 4, dichlorophenoxy acetic acid and α naphthalene acetic acid to induce callus formation;

(c) transforming said callus with *Agrobacterium tumifaciens* comprising a DNA encoding a chimeric gene of interest to effect the stable transfer of said chimeric gene to the genome of cells comprising the callus tissue;

(d) inducing somatic embryos from said transformed callus; and

(e) regenerating whole transgenic cotton plants having said gene of interest from said somatic embryos.

39. (New) The method of claim 38 wherein the chimeric gene encodes a marker gene.